

CLAIMS

What is claimed is:

1. A network device interaction system comprising:  
an application component that seeks to utilize a network device; and  
a configuration system that automatically configures the network device to  
operate with the application component.
2. The system of claim 1, wherein configuration of the network device comprises  
loading a driver associated with the device.
3. The system of claim 2, wherein configuration of the system further comprises  
setting one or more registry keys.
4. The system of claim 2, wherein the device driver is loaded from a local data store.
5. The system of claim 2, wherein the device driver is downloaded over the Internet.
6. The system of claim 2, wherein the device driver is received from the network  
device.
7. The system of claim 2, wherein the device driver is retrieved from a computer  
readable medium.
8. The system of claim 2, wherein the device driver is retrieved from a computer  
over a local area network.
9. The system of claim 2, wherein configuration of the network device further  
comprises updating device firmware to a newer firmware version packaged with the  
device driver.

10. The system of claim 2, wherein configuration of the network device further comprises writing a copy of a most recent or current device driver package onto the network device.
11. A network device configuration system comprising:
  - a monitor component that monitors a local area network for the arrival of network devices; and
  - a configuration component that automatically configures a network device detected by the monitor component to operate in conjunction with a computer system.
12. The system of claim 11, wherein the network device is a wireless device.
13. The system of claim 11, wherein the network is a power line network.
14. The system of claim 11, wherein the monitor component utilizes Simple Service Discovery Protocol (SSDP) to detect the arrival of a network device.
15. The system of claim 11, wherein the monitor component utilizes web services discovery (WS-Discovery) protocol to detect the arrival of a network device.
16. A dynamic network device configuration system comprising:
  - an association component that specifies an association of the network component with at least one other active network component;
  - an enumerator component that generates a physical device object (PDO) component that provides information about the device to be configured;
  - a PnP system that utilizes the PDO component to produce a functional device object (FDO) component that exposes device functionality to associated network components.

17. The system of claim 16, wherein the PnP system comprises a driver installation management component that receives a PDO component and locates a driver component that generates the FDO component.
18. The system of claim 16, wherein the installation management component utilizes extracts information about the network device from the PDO component and maps such data to an information component to determine a driver component associated with the device.
19. The system of claim 18, wherein the driver component is retrieved and loaded from a data store.
20. The system of claim 16, wherein the association component includes an authentication component to ensure access to network devices is restricted to associated network devices.
21. A method for interacting with network devices comprising:
  - detecting the arrival of a device on a local network; and
  - configuring the device automatically upon detection.
22. The method of claim 21, utilizing Simple Service Discovery Protocol to detect the arrival of a network device.
23. The method of claim 21, utilizing a web services discovery (WS-discovery) protocol to detect the arrival of a network device.
24. The method of claim 21, configuring the device comprises loading a driver associated with the device.

25. The method of claim 18, configuring the device comprises associating a device with at least one other network device.

26. A computer readable medium having stored thereon computer executable instructions for carrying out the method of claim 24.

27. A method of configuring a network device comprising:  
associating a network device with at least one other installed network device;  
locating a driver component associated with the network device;  
retrieving the driver component; and  
loading the driver component to facilitate installation of the network device.

28. The method of claim 27, wherein the at least one other network device is a personal computer.

29. The method of claim 28, wherein locating a driver component comprises searching a local data store of the computer.

30. The method of claim 28, wherein locating a driver component comprises searching a remote server.

31. The method of claim 30, wherein searching a remote server is accomplished over the Internet.

32. The method of claim 27, wherein the driver component is retrieved from the network device.

33. The method of claim 27, wherein the driver component is retrieved from the associated network device.

34. A computer readable medium having stored thereon computer executable instructions for carrying out the method of claim 27.
35. A methodology for dynamic configuration of network devices comprising:  
detecting the arrival of a network device on a network;  
creating a physical device object component representing the device;  
locating a driver component associated with the device  
utilizing the driver component to generate a functional device object that exposes the device functionality to applications.
36. The method of claim 35, further comprising associating the network device to one or more active network devices.
37. The method of claim 36, wherein one of the one or more network devices is a personal computer.
38. The method of claim 36, further comprising establishing a secure channel of communication between the network device and the other one or more network devices.
39. The method of claim 35, the physical device object component provides identifying and state information regarding network device.
40. A computer readable medium having stored thereon computer executable instructions for carrying out the method of claim 35.